Office of Information Technology
1999 State of the State IT Report

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Year 2000 Remediation Efforts

Two years ago, in a meeting in the White House Conference Center with John Koskinen and other representatives of the Federal Government, Mike Benzen was one of three people representing NASIRE. There was agreement that the states had primary Year 2000 (Y2K) responsibility in four areas:

- Making our individual state governments Y2K ready. Responsibilities in this area include repair of our data systems, stop lights, and state government building environmental systems.
- Making certain those we regulate have addressed the Y2K issue. This includes utilities, banks, insurance companies, hospitals, water and sewer systems.
- Conducting outreach efforts to governmental entities and businesses within the state to be certain they are aware of potential problems and are taking appropriate steps to address those problems.
- Maintenance of public confidence. It is important that we maintain public confidence in our basic infrastructure if we are to avoid runs on the financial institutions, the food supply or other harmful behavior changes.

While we began our Y2K efforts in Missouri long before the White House Conference Center meeting, the four basic responsibilities outlined provide an ideal vehicle for describing our activities.

- *Making Missouri State Government Y2K ready*
  - During the summer of 1996 we contracted for assistance from Andersen Consulting and performed a complete assessment of all Missouri State Government computer code. The result was an estimate of over a million

labor hours to effect repairs. We had sufficient "in-house" staff to perform a third of the work, the remainder would require outside contractors. During the fiscal '97 session, we requested and received an appropriation of $57MM for Y2K work. The appropriation was through Capital Improvements, and the balance was re-appropriated during the last legislative session.

- Our data systems are now completely fixed, tested and are in daily production and fully Y2K compliant. In short, Missouri's data systems are ready for the century change.

- Facilities Management has worked with all agencies to be certain state buildings are Y2K compliant. Very few buildings actually had Y2K problems and the fixes were not complex. Our buildings are now ready.

- The Missouri Department of Transportation (MoDOT) found that about 15% of the stoplight controllers owned by the state were not Y2K compliant. They are now fixed.

- *Y2K responsibility for those we regulate*

  - To address the issue we formed the Governor's Y2K Council. Members include the Public Service Commission (PSC) for utilities, Finance Division for banking, Department of Natural Resources (DNR) for water and sewer, Health for hospitals, Department of Social Services (DSS) for nursing homes, Facilities Management for state owned buildings, MoDOT for stoplights and transportation issues, Department of Insurance for the insurance industry, the Missouri Highway Patrol for law enforcement, and the State Emergency Management Agency (SEMA - partnered with PSC) for 911 issues.

  - The PSC has conducted a number of workshops on Y2K for the industries it regulates. They have worked as partners with the industries rather than assume an adversarial role. There has been a large amount of contact between the state and industry and we are confident they have effectively addressed the issue. We do not believe there will be serious infrastructure issues resulting from Y2K.

  - The Division of Finance, coordinating with Federal regulators, worked with the banking industry for the last two or more years. As of June 30, Missouri banks are prepared for Y2K. Thrifts and credit unions in Missouri are also Y2K compliant.

  - DNR has inspected a large number of water and sewer plants and found there to be no significant Y2K issues to address. They have continued to respond to newly reported problems and we have yet to find significant issues. We believe water and sewer service will not be affected by Y2K.

  - Each of the remaining council members worked with their respective industries and again, we expect no significant issues.

- *Outreach to other government entities and businesses*

  - Because we have no experience in "public outreach", we employed the services of both a public relations and an advertising firm, using an existing contract belonging to the Department of Economic Development. With their assistance we developed Y2K materials for each of eight industries. We also developed a Y2K workbook, desktop displays and posters.

  - In April we conducted a mass mailing to over 200,000 business, education and governmental entities. The mailing contained Y2K information and an offer to supply the workbook.

  - To date, we have supplied over 40,000 requested workbooks.

  - We made available an 800 number for workbook requests and for Y2K information. The 800 number has fielded over 4,000 calls to date. We also received over 17,500 reply cards for additional information.

  - We have, through our contractor, provided Y2K workshops for small businesses throughout the state. Federal funding is available to conduct additional workshops, but attendance has fallen to a point where they are no longer worthwhile. We now are doing them only on request.

  - During August we partnered with the Missouri Municipal League and had them chose six cities at random, with populations between ten and twenty-five thousand. We asked Andersen Consulting to conduct a simple audit of readiness in those cities. The results were positive. Those cities had addressed the issue and were ready. While a sample of six is small (it is what we could afford), coupled with anecdotal information we have gathered, we believe local governments are ready.

  - During August and September we had a telephone survey conducted to determine the readiness of small businesses in Missouri. The sample size was greater than 900 and we found that more than 95% had addressed the issue. Of the remaining 5%, we suspect a large number will have no Y2K issues, but we have concerns for those that have yet to address the problem. Our public service announcement campaign, beginning in November, is attempting to address the remaining small businesses.

  - The Highway Patrol had staff personally visit each law enforcement agency in the state to explain potential Y2K problems and urge appropriate action.

  - MoDOT has made contact with every political entity that owns stoplights, explained the issues incurred by MoDOT and suggested they take similar action.

- Maintenance of public confidence.
  - We have made ourselves continuously available to the media requests for information concerning Y2K. Missouri readiness has been addressed multiple times in most Missouri print media, on many TV and radio stations, as well as on CNN, in the Wall Street Journal, USA Today and others. The message has been positive and consistent.
  - We have participated in more than a dozen radio-call-in talk shows over the last year.
  - Through the advertising firm we have provided "news actualities" to radio stations concerning Y2K.
  - At the requests of various public leaders, including state senators and representatives, we have conducted more than 50 "community conversations" in various communities around the state. A presentation is made concerning Y2K, followed by an opportunity for the public to answer questions. Many of these have been video taped and are shown on local cable access TV for those unable to attend.
  - We released a PSA video targeted at both public confidence and small business readiness in November.
- *Concluding the Y2k effort*
  - The Federal Emergency Management Agency (FEMA), at the request of ICC and the White House, has asked each SEMA to activate its emergency center for the New Year holiday weekend. SEMA (Missouri) has taken the lead on this and the Office of Information Technology has worked closely with them.
  - While we do not expect major disruptions, we will be in a position to monitor the infrastructure. We have all of SEMA's emergency communications and reporting system to rely on, and in addition we plan to have the Governor's Y2K Council present, with utilities reporting to PSC staff, water and sewer monitored by DNR, etc. We will have state government IT staff present in their respective agencies to report readiness of state data systems and networks. Several media representatives have expressed interest in being in attendance and we expect more interest as the date draws near.
  - On the date this report is written, mid-December, we anticipate that we will have some minor Y2K problems, but expect no major disruption to state services. Because this report will be read after January 1, 2000, the reader will have the advantage of hind-site to judge the accuracy of the expectation.

Project Management Initiative

The Office of Information Technology in cooperation with the Office of Budget and Planning recognized several incidents of exceeding scheduled time and budgeted costs with information technology (IT) related projects. The two offices have partnered to build a project management methodology that is repeatable and can produce sustainable results for all IT projects. The Information Technology Advisory Board (ITAB), comprised of the state information system directors, added their support to this effort.

Last year, after determining the need for a training program, an industry standard was identified and a strong training program established. Approximately fifty information system employees have completed the project management training with another twenty-eight scheduled to complete the training within the next six months. Current efforts include assisting project managers that have completed the initial training to advance to the professional level by attaining Project Management Professional Certification through the Project Management Institute. Advanced project management training and continuing education is also being planned.

New project management requirements have been identified and will be phased in over the next several years. Risk management is an important part of the overall project management initiative, and this year a risk management plan was required for IT related budget decision items. The Office of Information Technology received and reviewed twenty risk management plans and forwarded comments to the Office of Budget and Planning for their review. Lessons learned are being documented and will be used to improve current processes and possibly avoid making the same mistake twice.

A project plan and a change management plan will be required for all IT related budget decision items submitted for FY02. Policies, guidelines and best practices are currently in the development stage and will be reviewed and published on the project management web site when finalized.

In an effort to ensure current and future projects are managed properly, a contract for project oversight services is being developed that will furnish an additional tool for controlling IT projects.

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Office of Administration

SAM II Project History Summary

Work began on the SAM II project in FY96 with bid document creation, extensive evaluation of bids, and defining requirements to replace the existing statewide financial systems operated by the Office of Administration. The system initially targeted for replacement was the Budget System, but as the analysis progressed, the need to also replace the base Statewide Accounting System (SAM) and the payroll system (PARS) was realized and pursued. The scope of the project was elevated to include replacement of all Office of Administration (OA) statewide financial systems including SAM (accounting system), PARS (payroll and personnel), Budget, MAPS (procurement), Fixed Assets, and various other personnel subsystems such as Service History and Position Management. The scope and complexity of the project was manifested further by the fact that most state departments have financial and personnel subsystems that interface into OA's systems. Replacement of the OA systems required extensive changes to departmental subsystems.

Funding SAM II was partially acquired in FY97 and an additional amount was added in FY99. A total of $40,259,780 was obtained for SAM II and expenditure of that amount began in FY97. The remaining balance of $18,415,512 at the end of FY99 was reappropriated to FY00 for completion of the project.

The SAM II Project has two primary phases – Financial and Human Resources (HR). The Office of Administration has contracted with American Management Systems (AMS) to implement both phases. Phase I (Financial) was implemented by installing the AMS Advantage financial package in July 1999. The Financial phase consisted of the implementation of the AMS Advantage financial package replacing SAM, MAPS, Budget Subsystem, Inventory and Fixed Assets Subsystems.

Implementation of the Advantage financial software and BRASS (Budgeting Subsystem) began in July 1999. All agencies are now using these systems, either directly through on-line transactions or through agency interfaced transactions from internal departmental systems. SAM I, MAPS and related Budget Subsystem operations ceased day-to-day operations in September 1999 after the close of the FY99 lapse period.

The Human Resources (HR or payroll) software is scheduled to begin installation in May 2000. The HR phase will replace the state's current PARS system and related subsystems such as Service History and Position Management. Implementation of the HR phase will begin in May 2000 with a departmental phased implementation schedule beginning with the Office of Administration and Agriculture. The conversions from the PARS system will continue through November 2000.

Project Management Summary and Staffing

The SAM II Project is one of OA's highest priorities as defined in the OA Strategic Plan (see Goal #3.) It has the support and sponsorship of:

- Dick Hanson – OA Commissioner, and
- John Boehm – Deputy OA Commissioner

The project is also sponsored by the SAM II Steering Committee that oversees and reviews SAM II plans and policies. The Steering Committee consists of high-level agency management and fiscal representatives that provide guidance to OA and contractor management.

The SAM II Project Management team consists of the following OA directors:

- Jim Schutt – OA/Division of Information Services Director
- Jim Carder – OA/Accounting Director
- Lee Capps – OA/Personnel Director

An Operations Committee of OA division directors and staff has been created to review the requested changes and to oversee the operations of the new systems.

Agency liaison groups have also been in place since the early stages of SAM II to provide guidance and review on project policies, procedures and system changes. These groups will continue in a more limited, ad-hoc role during the post-implementation effort of Phase I while other liaison groups have been created for HR implementation.

The project is staffed jointly between AMS contractor staff and state personnel. State personnel are primarily from the Office of Administration, but other departments loaned significant numbers of staff during the implementation of Phase I. Other agency staff have been loaned to the HR Phase for FY2000-2001. As of December 1, 1999 a total of 130 staff were working on the project with a mix of about 50% contractor and 50% state personnel.

Summary of Accomplishments / Future Plans

As described above, the Financial Phase of the project (Phase I) was implemented on July 1, 1999 as scheduled. Full check writing and operations of the new system began in July

and completely replaced SAM (the prior system) after the close of FY99 on August 31, 1999.

The new budget system was installed in time for preparation of the FY01 budget process in August 1999 and was installed on schedule. The new system offers much easier operations and on–line update and reporting capabilities being used extensively by Budget and Planning as well as the agencies. It will be the basis for analysis and available for use by the legislative staff committees during the FY2001 budget process.

A significant state agency personnel training effort was undertaken in FY99 to prepare the agency personnel for SAM II. This led to the opening of a new statewide technical training facility – Missouri Technical Training and Education Center (MOTEC). This facility will continue to operate in FY00 on SAM II funding but it is a program that needs to continue in later years also. Ongoing funding for MOTEC is being requested in the FY01 budget.

Continued post-implementation efforts on Phase I will continue in FY01. A significant Phase I enhancement, composed of 1099 reporting and the On-line Bid Enhancement, will be implemented in December, 1999. The Human Resources phase (HR) will continue development in FY01 with conversions and production operations of the HR software to begin in May 2000. Agency conversions to HR will be implemented after that with the last departmental conversion scheduled in November 2000

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Department of Agriculture

Background and Environment

The Missouri Department of Agriculture is comprised of six divisions:

- Division of Animal Health
- Division of Grain Inspection and Warehousing
- Division of Market Development
- Division of Plant Industries
- Division of Weights and Measures
- Division of Missouri State Fair

The Office of the Director provides administrative, personnel, fiscal, and data processing functions for the Department of Agriculture. Each division is responsible for specific areas of Missouri's diverse agricultural industry. These areas include agricultural and small business loans, licensing applications, scales, fuels, fuel meters, fuel dispensers, moisture meters, milk, dairy, egg, feed, seed, pesticides, entomology, livestock markets, livestock dealers, livestock disease control, environmental quality, consumer protection, producer protection, livestock imports, brands, domestic marketing, international marketing, Agri-Missouri products, grain dealers, grain warehouses, commodities, and the Missouri State Fair.

An IBM AS/400 Model 620 computer provides both data processing and office automation functions to all divisions except for the Division of State Fair at Sedalia where an IBM AS/400 Model 600 provides those functions for that particular division. The majority of our users utilize a networked personal computer attached to the AS/400 and a few users utilize twin-ax-attached terminals as a means of communication. Data processing services are provided to our user base by one computer information technology supervisor, one computer information technology specialist I, three computer information technologist III, three computer information technologist II, two computer information technologist I, and one full time data entry operator.

The department has standardized on the Microsoft Office Professional Suite, Lotus Notes, and OneForm in terms of personal computer desktop software products. The

AS/400 platform is our standard for new system development and Client Access 400 is the connectivity standard for the AS/400. TCP/IP is our standard protocol.

Current Initiatives

A new Vet LIMS system has been designed, developed and implemented. This system captures the lab results from our three diagnostic labs located in Jefferson City, Cameron, and Springfield. The system produces invoices, disease tracking reports, managerial reports, and monthly statements to veterinarians.

A new grain inspection has been designed, developed, and implemented. This system produces official certificates, managerial reports, and monthly statements for our customers in accordance with FGIS.

A new grain regulatory system has been designed and the first phase of the system has been implemented. The first phase consists of the licensing of grain warehouses and grain dealers. The second phase will deal with grain warehouse audits. The second phase will be completed by January 1, 2000.

Imaging has been implemented within our department. Our imaging system is integrated with our database. This allows our users to view and print documents associated with their data. Documents are bar coded with the necessary indexes and are therefore automatically indexed when scanned.

Our web site committee has developed a systematic approach to update our web site. The site is based on function rather than organization and will continue to be updated on a weekly basis.

In terms of Y2K, we have modified our systems to be Y2K compliant with existing staff and resources. Conservatively speaking, this saved taxpayers over $500,000.00 versus outsourcing this project.

A budget request for training of our computer information technologists has been submitted for fiscal year 2001. The training provided by this request will assist our staff in terms of staying current on best practices of implementing information technology. In turn, our staff will train our users on the department's standard software products.

A budget request for two FTE to implement a help desk have been submitted for fiscal year 2001. This budget item will have a positive impact on our internal customers and will allow us to improve existing services to them. In turn, our external customers will be affected in a positive fashion.

Future Direction

New systems will continue to be requested, designed, and implemented. These systems will be the result of legislation and/or required delivery of services to our customers. Pilot projects of current technologies such as scanner technology, bar coding, electronic data

interchange (EDI), electronic commerce, etc., will be done in applicable areas to reduce duplicate data capture efforts and improve customer services.

Helpdesk implementation is planned during fiscal year 2001 to provide better delivery of services to our customers in a more cost-effective manner. Also, additional training is planned to ensure a high-performing workforce.

Information technology performance will continue to be measured in relation to our strategic plan in terms of timeliness and quality of our products. There will be continued enhancement of our web site to provide the information desired by our customers. Eventually, our web site will be transformed from an informational site to an interactive site and provide business functions based on our customers needs.

Department of Conservation

Planning and Development

- Completed the Vegetation Monitoring System for Natural History.
- Completed the Publication Inventory system for the O&E warehouse.
- Completed the Department Shooting Range application for Protection.
- Completed a new application to track Operation Game Thief calls for Protection.
- Completed a new Hunter Ed Conference registration application for Protection.
- Completed a Commercial Permit application for Fiscal.
- Completed the Hunter Method Exemption application for Protection.
- Completed a new Department-wide automated Expense Report system.
- Completed all FY99 fiscal end-of-year processing, opened FY00 with all new SAM II account numbers.
- Installed new release of Oracle RDBMS (v. 8.0.5).

Operations and Maintenance

- Installed 160 new PC workstations.
- Upgraded 115 PCs from OS/2 to Windows 95 operating system - these upgrades, combined with the new PC installations, means we now have a total of 896 PCs running Windows 95/NT.
- Processed 10,006 trouble calls through the Help Desk, of which 72% were resolved on the initial call.
- Completed 2,486 maintenance trouble tickets on computers across the state.
- Upgraded 1,038 users from GroupWise 4.1 to GroupWise 5.
- Supported an AS/400 print load of 75,050,321 lines.
- Supported an AS/400 workload of 187,254 jobs.
- Added a new server in Central Office to support SAM II interface and Oracle databases (IBM NetFinity 5500).
- Upgraded 3 field networks with new IBM NetFinity 3500 servers and IBM WARP operating system (Sedalia, Burr Oak Woods and Chillicothe).
- Added Rolla and Lebanon to our WAN.
- Upgraded 27 WAN sites through either circuit upgrades or router upgrades.

Telecommunications

- Implemented and maintained Wildlife's Waterfowl Reservation System using new Interactive Voice Response (IVR) system which handled 5,395 (over 15,000 minutes) in a 13 day period.
- Planned, designed, procured and installed a telephone system upgrade for the new St. Louis Regional Office. Designed, procured and installed new telephone systems at Kansas City Regional, Hannibal, Schell-Osage. Designed and procured new systems for Lost Valley, Piedmont, and Eminence.

Coordinating Board for Higher Education

The Department of Higher Education has not requested nor received appropriations for specific internal Information Technology (IT) projects.

The General Assembly created two critical student assistance programs in 1998 with the passage of HB 1694 and HB 1519. In 1999 funding was approved for these programs for the first time. During the summer, we completed the initial application process for the two new programs in time to disburse the funds for the fall semester of the 1999-2000 academic year. We disbursed over $5 million to 2919 students and plan to disburse a similar amount for the spring semester. This effort required the IT staff to design and implement a system that could interact with our student aid database, determine eligibility and award amounts, and disburse funds to more than 50 Missouri colleges and universities.

Advantage Missouri Program (HB 1694)

The Advantage Missouri Program is a loan and loan forgiveness program designed to address workforce needs in high demand occupations. Students enrolling in an academic program in an occupational field of high demand may apply for a loan that will forgive one year of the loan for each year the student works in Missouri in that specified field. The designated occupational fields for the 1999-2000 academic year are computer-related fields, biomedicine/biotechnology, and advanced manufacturing.

The College Guarantee Program (HB 1519)

The College Guarantee Program provides scholarships based on financial need. Students must meet specified academic standards. The program is designed to serve Missouri's neediest students regardless of institutional choice.

We have also maintained and supported programming in response to continued funding for the following programs:

- Academic Scholarship (Bright Flight) program,
- Charles E. Gallagher Grant program,
- Paul Douglas Scholarship program,

- Marguerite Ross Barnett Scholarship program,
- Bridge Scholarship program,
- Missouri Student Loan Program (MSLP),
- Program inventory of academic courses offered throughout the state institutions.

Our major impetus in the coming year is updating the format and content of our web page along with web enabling the previously mentioned grant, scholarship, and loan programs. Our goals include providing online access via the Internet for students to complete grant/scholarship applications; for MSLP clients to order applications, forms, and information packet requests; for schools to view and approve grant/scholarship student rosters; and for schools and lenders to access disbursement and loan information.

Finally, the IT section is striving to improve employee productivity by providing the appropriate computing resources and services, including e-mail access, imaging applications, and various hardware and software.

Department of Economic Development

Professional Registration Licensing System

The Division of Professional Registration must be able to efficiently and effectively process a large amount of data involved in the regulation of Missouri's licensed professionals. Prior to September 1, 1999 these tasks were handled by a mainframe system that was more than eighteen years old. The manner in which the system processed information was inefficient and in many ways ineffective. The system was in great need of replacement to allow the Division of Professional Registration to provide timely, consistent and higher quality responses to the licensees. This new system would allow for increased standards of regulation for over 250,000 Missourians that the Boards regulate. It would also service licensees and the public with a faster turn around on license renewals, applications, and the over 800 annual public information and walk-in renewal requests.

The new licensing system went into production on September 27, 1999.

Public Service Commission Information System

The Commission presently works primarily from paper-based information systems and antiquated electronic information systems. Information between the Public Service Commission (PSC), the utilities (and public) is not being handled as efficiently and consistently as possible. When information is only available in paper format, the PSC cannot use that information effectively in multiple divisions/departments. Because there is a paucity of tracking systems for the paper, many times workers at PSC don't know what information is available and have to spend many hours searching for the information. Additionally, over a period of time, the PSC has upgraded and changed systems without a long range information technology plan which has led to multiple systems that do not "talk" to each other.

Two critical goals for this IT effort are to develop a state-of-the-art infrastructure and application interoperability between all business departments. This will also allow, via Internet web access, controlled, secure access by the public to important case

information, complaint resolution, as well as general information that will help them make informed decisions about their utility choices and providers.

As of December 14, 1999, proposals are being reviewed and a contract should be awarded by the end of December. The RFP originally outlined a three-year phased approach. The proposed development and implementation plans range from nine months to twenty-one months. The target implementation date for phase one should be determined and finalized with the contracted integration vendor by January 31, 2000.

Motor Carrier Document Imaging

Currently, the division's Registration, Audit, and Research Section handles approximately 52,000 pieces of paper each year. The Interstate Commerce Commission Transfer Act of 1995 will replace the current Single State Registration System with a single federal on-line system in conjunction with the Financial Responsibility Information System and the Federal Registration System. It appears that the new system will be operated by the states. This new system will encompass all private and interstate exempt carriers, in addition to currently regulated interstate carriers. Therefore, the division will be registering approximately 7,000 additional carriers and processing an estimated additional 91,000 pieces of paper each year. By implementing a document imaging system (i.e., paperless system) for the registration process, the division will be able to reduce the cost and time to register motor carriers and will be able to register the additional private and interstate exempt carriers without the addition of any FTE's.

The document imaging system will, most importantly, provide faster and more accurate customer service with the following benefits:

- allow simultaneous review of applications by different sections,
- reduce processing time of application, registration, and insurance records,
- eliminate filing,
- provide faster retrieval of registration information,
- allow faxing directly from desktop computers, and
- eliminate some data entry work.

In addition, the system will improve the division's record management by decreasing the number of copies made in the Registration, Audit, and Research Section, thereby, saving money on the purchasing and storage of large amounts of paper.

This project is being procured through the Prime Vendor Contract with GE Capital. The imaging vendor is WordTec of Kansas City. The preliminary proposal by WordTec has been received, reviewed and approved by the division. At this time, a detailed scope-of-work is being prepared by the vendor. Software acquisition is moving forward in December to take advantage of a cost savings. This project must be completed by July 1, 2000 to meet its federal mandate. The Risk Assessment Plan has been reviewed and no risk triggers have been met. The project is progressing successfully.

Missouri WORKS!

Missouri *WORKS!* is about employment, job development, and training. Whether you are an employer looking for a qualified worker, a job seeker looking for employment, or a citizen looking for information on a variety of topics, Missouri *WORKS!* can help you! And it's a free, self-service system! All you need is an Internet connected PC. For those customers without Internet access in their homes, the Department of Economic Development has established resource rooms in each of their 41 locations throughout the state. In these resource rooms, computers are set up for public use, including job seekers and employers alike. Missouri *WORKS!* is also an integral part of the new Division of Workforce Development offices where customers can access services provided by several different state agencies in one location. Check the Job Service Office, One Stop location or local library near you.

Missouri *WORKS!* offers the following:

- Employers can search a large pool of job applicants in Missouri after completing a simple registration process. Employers can post their own job openings, thus giving these employers complete control to advertise their job openings. These employers can then search resumes for qualified job seekers. Employers will also find a user's guide, a small business handbook, MEC schedules, federal and state reporting requirements, and a tax credit program guide.
- Job seekers can enter their resume online and conduct a self-directed job search through 30,000+ job openings by area or occupational classification. Job seekers have the ability to refer themselves online, giving them access to the employer's contact information. Other aids include information about area businesses, as well as a user's guide and a job search and resume preparation guide.
- The Resource Center site offers information about labor market statistics, veterans benefits, federal training programs, one stop career centers, assistive technology, a small business handbook, and job search, cover letter and resume preparation guides.

  The Internet Address is: http://www.works.state.mo.us/.

The workforce development division has approximately 500 personal computers available in the resource rooms of our offices for public use. The following statistics are for the month of August 1999:

- 5,483,697 hits
- 264,267 user sessions
- 277 assisted with questions online via email

The following are Missouri *WORKS!* statistics as of October 1, 1999:

- 5,048 employers registered to do business online
- 10,028 open job orders (current total)
- 1,031 open job orders (employer entered)
- 5,804,978 job orders viewed by the job seekers since May 7, 1997
- 2,963,642 online referrals posted by the job seekers since July 1, 1997
- 71,008 active job seekers resumes less than 60 days old
- 356,022 total job seeker resumes
- 58,340 job seeker resumes entered online through Missouri *WORKS*!
- 1,248,826 job seekers resumes viewed by employers
- 281,619 job seeker resumes downloaded by employers
- 809 online orders for publications received and filled

One-Stop Workforce Development Center Integration

A decision item has been submitted for a project with three major components. Those components include:

- upgrades to the current communication lines between out-state offices and the DED network in Jefferson City,
- modifying the current Workforce Development system to be web-enabled for clients, off-site staff, business partners and other vested stakeholders, and
- the development of an integrated application for the various working partners in the One-Stop offices.

The infrastructure upgrades are an integral step in maintaining and improving the current levels of service provided in the One-Stop offices. Modifying the current systems to make them web-enabled creates an access method to a whole new population of customers.

Creating a case management system accessible and utilized by all the partners of the One-Stop offices meets the requirements of the Workforce Investment Act. It allows data to be transferred and shared to the appropriate systems and reduces redundancy of manual entry and information isolation. Reduced information isolation will create a framework of more accurate and up-to-date information on the customers of the One-Stop office, resulting in better services.

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Dept. of Elementary and Secondary Education

Overview

The Department of Elementary and Secondary Education (DESE) is in year four of a seven year plan to move all of their information systems to state-of-the-art technology that will enable Missouri School Districts to communicate with the department through interactive web applications. To date, school districts are able to apply for federal and state grants, submit sheltered workshop timesheets, access teacher certification information and evaluate professional development training held at our Regional Professional Development Centers through online web applications. These projects have met and exceeded the department's performance objectives to reduce the paper flow from the schools, reduce school administrative time, reduce turnaround time of responses to schools and provide for reallocation of department administrative staff to technical assistance for the schools, as well as significantly increase customer satisfaction.

The department initially prepared an information strategic plan directly tied to our DESE Strategic Plan. This information plan contains our information architecture, technical architecture, business systems and implementation plans, and is reviewed and updated on an annual basis. The department has completed a risk management plan that is also reviewed and updated on a monthly basis as part of project management. DESE currently has a certified project manager on staff and two certified consultant project managers working on projects.

Data Warehouse Pilot Project

A data warehouse pilot project is nearing completion. This project allows school districts to access data via a web browser and create ad hoc reports, charts, and do online analysis on school and assessment data. Department staff utilize a sister desktop tool with a graphical user interface to access the data warehouse through the DESE network. The data warehouse project is being enhanced to provide school finance data as well as data that was originally collected and stored at the University of Missouri's Office of Social and Economic Data Analysis for research and planning.

These newly developed e-government systems are designed to utilize web browsers for access by customers and have graphical user interfaces (GUI) for internal staff. The use of the web and web browsers eliminates the need for the districts to purchase additional hardware or software in order to provide data to the department. The department has utilized state standard hardware and software for this project. In addition, the technology team has adopted reuse development methods through the use of components. We have developed three business components that are used by all newly developed systems, as well as adopted components developed by other entities that have saved us considerable time and lowered development costs.

Year 2000 Remediation Efforts

The department has inventoried, assessed, remediated and implemented all changes necessary for the year 2000. This includes coordination of all facilities changes, computing hardware, software, network and services and outreach to all school districts in the form of presentations, mailings, conferences and references to appropriate informational web sites.

Microsoft Office User Specialist (MOUS) Certification Program

Missouri was the first state to initiate the Microsoft Office User Specialist (MOUS) Certification Program for K-12 teachers and students. The vision of the Missouri Program is that Missouri teachers, students and workforce will raise their level of end-user computing skills to meet tomorrow's challenges and opportunities through a dynamic alliance of state government, education, community and private industry. The Missouri MOUS Initiative is an alliance between the State of Missouri, Microsoft and Nivo International to provide testing and training on Microsoft Office applications to K-12 teachers, technology trainers and 11th and 12th grade students, as well as adults enrolled full-time in the area vocational school programs. In this initiative, Nivo International is providing 10,000 free MOUS exams and technical support. Microsoft is donating software for this program and the independent courseware vendors are contributing training materials. The Department of Elementary & Secondary Education has grants available to assist schools in obtaining necessary equipment and software for this initiative. The department is monitoring the program rollout and will provide on-going status reports and statistics on our web site.

Finally, the Department of Elementary & Secondary Education has entered into a partnership with the University of Missouri's MOREnet organization and GE Capital IT Solutions, the state's prime vendor, to integrate "state-of-the-art" technology and high-capacity internet connectivity into the teaching, learning and evaluation process of 100 Missouri classrooms. The Enhanced Multimedia Interactive Networked Technologies project (e-Mints) will introduce multimedia computers, electronic interactive "chalkboards" and high-speed network connections to each classroom. Educators are trained on strategies to integrate the technology in the curriculum. Students work in pods with fellow students and share a computer; the technology transcends boundaries of time and distance, delivering once inaccessible resources right to the desktop—immediately.

This is a follow-on to a pilot project implemented with a grant from Southwestern Bell which resulted in documented improvements in student test scores.

Department of Health

MOHSAIC

During 1999 the MO Department of Health (DOH) continued its progress on developing and implementing a statewide-integrated public health system (MOHSAIC). MOHSAIC achievements in 1999 include:

- Extending the immunization module to private providers. Prior to 1999 all local public health agencies had access to the MOHSAIC immunization module for entering and looking up immunizations. During 1999 the Department of Health began making the module available to private providers through an Internet web site. The Department of Health also began work on a data exchange with the larger managed care plans to load immunization data from their systems into MOHSAIC.

- During 1999 the Department of Health implemented the Surveillance module of MOHSAIC for reportable communicable diseases in the state's metropolitan areas. This module tracks occurrences of communicable diseases so that public health workers can respond rapidly to any outbreak. Sexually transmitted diseases, including AIDS/HIV, will be added to the module in early 2000.

- The Department of Health implemented the Regulated Client module of MOHSAIC for Narcotics and Dangerous Drugs program this year. During 2000 the Child Care Safety and Licensing program will be added to the Regulated Client, which will meet the requirements of last year's House Bill 490, Child Care Worker's Registry.

1999 Accomplishments

- The Department of Health was awarded a multi-year grant for a Health Alert Network as part of the Centers for Disease Control bioterrorism grant. With funds from this grant, the Department of Health will provide Internet access, e-mail, streaming video and computer-based training for all local public health agencies at no cost to the local agency. The funds will also provide two-way

video conferencing capabilities among the Department of Health and the three metropolitan areas in the state. The Department of Health has already begun installing the Internet access in the local agencies and has selected and tested software and equipment for the e-mail, streaming video, computer-based training courses, and the two-way video conferencing. The Department of Health will install these in local public health agencies in early 2000.

- The Department of Health completed changes to make its technology infrastructure and all of its applications year 2000 compliant. It tested these changes on its test network with the server and clients dates moved forward to 2000.

Missouri State Highway Patrol

Cooperative Network

The Missouri State Highway Patrol, in cooperation with the Office of State Courts Administrator and the Department of Social Services, continued the implementation of the Cooperative Network. This project establishes a single telecommunication point-of-presence in each county in the state. The telecommunication circuit is used to allow local governmental agencies in the county to access state systems such as the Missouri Automated Child Support Enforcement System, MACCSS, the Courts case management system, Banner, and the Missouri Uniform Law Enforcement System, MULES. The consolidation of the network is now complete. The network does require some additional infrastructure investment to provide uninterrupted 24-hour availability. Network expansion is expected at approximately 15% annually as additional local agencies request connectivity. There are also requests pending from other state agencies to join the Cooperative Network. The consolidation of the three agencies data networks is consistent with the COMAP initiative on network consolidation.

The operation of the network is funded through the Missouri Criminal Justice Technology Revolving Fund. The fund had its spending appropriation authority raised to $2 million this past year and in the coming year approval is being sought to raise the spending authority to $3.9 million. The Cooperative Network provides critical connectivity to local governmental agencies so that they may access state services and so that they may report events to state government as stipulated in statute. The Cooperative Network is an excellent example of agencies cooperating to consolidate data networks and in the process provide improved services at less cost. The Cooperative Network project has saved the state approximately 2/3rds of what such a network would have cost the state had the three agencies implemented their own frame relay networks. The Missouri State Highway Patrol administers the network on behalf of the participating agencies through a formal memorandum of understanding and service level agreement. The participating agencies have sought in the past and will seek again appropriations that would fully fund the state's telecommunication network. The appropriation request will be $1,378,000 and will grow at an approximate rate of 15% annually until all customers requiring connectivity are connected.

Notebook Computers in Patrol Cars

The Missouri State Highway Patrol is working to implement an operational program that will equip each of its vehicles with notebook computers. The computers increase the productivity of enforcement personnel by providing access to critical information needed for enforcement decisions. Installation of the computers in the vehicle also increases the safety factor for officers. In a tragic situation this year, this technology may have helped to save the life of the Patrol's Sergeant Robert Kimberling. Sgt. Kimberling was shot and killed near St. Joseph, Missouri after initiating a traffic stop of an individual suspected of leaving a gas station without paying for gas. The individual had an outstanding missing person and caution record entered in the National Crime Information Center's system at the time of the stop. Sgt. Kimberling called the license number into the Patrol's St. Joseph dispatch center. The response to that inquiry was returned in 9 seconds to the computer aided dispatch system. It took a little over 2½ minutes for the dispatcher to attempt to contact Sgt. Kimberling with the caution information because of additional inquiry responses being received for four other officers for whom the dispatcher was providing service. By the time the 2½ minutes had elapsed and the dispatcher attempted to contact Sgt. Kimberling, the officer had already been shot. Had Sgt. Kimberling had this type of technology available to him, he would not have had to wait for the response to his inquiry to be processed through dispatch. Sgt. Kimberling would have had the response to his specific inquiry routed to him in the 9 second time frame rather than the 2½ minute time frame, potentially saving his life.

This technology will automate the issuance of a traffic citation, a traffic violation warning, an accident report and other field investigation reports. The technology will allow an officer direct access to wanted person and stolen vehicle data. In other jurisdictions where this type of technology is in use officer productivity has increased in the categories of number of inquiries made, number of warrants cleared per officer and number of arrests per officer. These increases have been as high as 10:1 in the number of inquiries made, 3:1 in the number of warrants cleared, 3:1 in number of criminal arrests and 4.5:1 in traffic arrests. The Patrol is outfitting 18 vehicles this year to begin collecting data on the productivity and safety improvements. The initial project will provide vehicle access to stolen and wanted information and automated traffic accident forms. The statistics will then be published to help substantiate the need for such technology in the vehicles. To outfit the Patrol's entire fleet of enforcement vehicles the start up costs are approximately $9 million with an annual operating budget of $2 million.

AS/400 Upgrade

The Missouri State Highway Patrol relies heavily upon the AS/400 for office productivity. Such functions as e-mail, calendar and document management are critical to the Patrol's operation. Additionally, the Patrol uses the AS/400 for some limited case management systems. Two examples are the Arrest/Incident/Investigation System and the Crime Lab System. These two systems are critical to the Patrol's criminal investigation operation. The Patrol received approximately $750,000 to upgrade its AS/400 systems. The funds were appropriated out of drug forfeiture funds. This upgrade project has been on hold pending the outcome of negotiations with the federal

government on the use of drug forfeiture funds. If the funding impasse is resolved the AS/400 in operation at the Patrol can be upgraded in approximately 9 weeks.

Computer Aided Dispatch System

The Missouri State Highway Patrol implemented a computer-aided dispatch system during the past year. The system serves to automate the dispatch center for the Patrol. The system connects the dispatch center with other operational units within the Patrol where calls for service are originated, most notably the front desk of the troop headquarters. The CAD system also establishes an infrastructure that will support the electronic dispatching of an officer once notebook computers are installed in enforcement vehicles. This system allows for the automation of call-for-service tracking, automated interface to the Missouri Uniform Law Enforcement System, geocoding of enforcement activity and automated officer scheduling. The project was funded through a federal COPS More grant and the Patrol's core budget. The system was implemented on March 1, 1999 and has progressed through a number of enhancements. The system is operational in all nine of the Patrol's troop headquarters.

Department of Insurance

Introduction

The mission of the Department of Insurance Information Services is to develop and establish procedures, rules, policies, systems and services related to computer and other technologies that help satisfy the critical achievement requirements of Information Services customers throughout the department. Furthermore, Information Services must fulfill the traditional data processing mission of providing a dependable, efficient and secure computing infrastructure; acting as stewards for the Department of Insurance's data and information resources.

While Year 2000 Readiness efforts consumed much of the Department of Insurance's information systems resources during 1999, the Information Services group adopted three strategic initiatives aimed at:

- improving communications between the Information Services section and its customers;
- establishing a flexible, supportive information systems infrastructure throughout the department that leverages Information S. resources by extending the organization into the user community;
- establishing a responsive, expert support network for the Information Services section that leverages Information Services resources by extending the organization to outside expertise.

As a result of those efforts, several critical needs were identified throughout the Department. Chief among them were:

- the need for comprehensive and on-going employee training in the use of modern computing and communication technologies, (an effort funded with existing appropriations);
- the need to obtain appropriate tools, such as CA OPAL to update many of the MDI's mainframe-based data processing systems; including the Premium Tax system, (a project appropriated for FY00);
- the need to automate the Department's paper handling and storage processes through the utilization of document imaging and related technologies (a project appropriated for FY00).

Training

Background – During 1998 and 1999, the Missouri Department of Insurance upgraded its desktop computer environment to Microsoft's Windows NT operating system and migrated its standard personal computer software to Microsoft's Office suite that includes the word processor - MS Word, the spreadsheet – MS Excel, and the database manager – MS Access.

Objectives - Discussions with MDI managers and supervisors highlighted the need for training and produced the following goals:

- make training for these new tools a high priority within the department,
- produce a training schedule that is available to all MDI employees and locations,
- offer training sessions for various levels of experience and expertise.

Project Status – During 1999 the Information Services staff, with the assistance of MDI's Human Resources section, identified and scheduled the following personal computer training for MDI employees:

SUBJECT	EMPLOYEES
Windows NT (Intro)	82
MS Word (Intro & Advanced)	100
MS Excel (Intro & Advanced)	96
MS Access (Intro & Advanced)	121

System Update Tool –(C.A. OPAL)

Background - The Department of Insurance maintains several crucial computer systems in the State Data Center. These legacy systems are written in diverse computer languages requiring on-going maintenance of the supporting software and required programming skills; both of which are becoming more expensive and difficult to retain.

Objectives - This project seeks immediate and long-term solutions and alternatives for MDI legacy systems and programs housed in the State Data Center. The preferred solution will encompass other goals related to maintaining legacy data systems, such as:

- modernizing user interfaces,
- simplifying complex data structures and navigation,
- combining information from multiple and diverse applications,
- extending historical data to decision-makers desktops,
- migrating legacy data to client/server databases, where appropriate,
- presenting information in a single view from multiple data sources.

Project Status - Preliminary research has identified a set of software products collectively referred to as CA OPAL sold by Computer Associates that satisfies all of the project goals. OPAL Server runs on a Windows NT platform, CA OPAL Integrator and Client licenses run on either Windows NT or Windows 95/98. The common network protocol,

TCP/IP, serves as the network transport. Each of these pieces fit well into the existing MDI and state government computing scheme.

MDI personnel are presently addressing contractual requirements for acquiring this product and its supporting network hardware. If purchase is possible via the prime Vendor contract, acquisition may occur in February 2000, with training beginning immediately thereafter. Early system updating could begin as early as April 2000.

Automated Document Imaging, Storage and Retrieval System

Background - The Missouri Department of Insurance processes approximately 80,000 agent license applications (new and renewal) each year. Each application is accompanied by supporting documentation. License applications must be kept readily at-hand during the license period, one year, for daily reference by several licensing clerks. Additionally, the MDI, in the pursuit of assuring the financial viability of Missouri insurance companies, receives, processes, files and continually references hundreds of thousands of pages of financial data and supporting documentation from companies.

Objectives - This project aims at capturing many of the Department's paper documents in electronic form and encompasses the following goals:

- automating MDI workflows,
- reducing paper handling by MDI staff,
- providing a method for document "sharing" and simultaneous use,
- reducing and/or eliminating paper storage requirements.

Project Status – The MDI Information Services section organized a special Document Imaging Team, consisting of employees from throughout the Department. The team is charged with the selection and implementation of an automated document imaging, storage and retrieval solution for the Missouri Department of Insurance. During 1999 the team attended basic training in document imaging and toured other state agencies' imaging installations. These preliminary steps will help to establish the necessary foundation for the evaluation and implementation of an appropriate solution for the Department.

The Information Services staff identified a potential solution that follows a recent imaging and automation effort performed by the Coordinating Board of Higher Education. While the final solution could be somewhat different, the knowledge sharing provided by imitating systems installed by other state agencies is a key factor in the on-going success of efforts like this one.

Consultation with WordTech to select the initial MDI section to automate will continue through March, with acquisition of the necessary hardware and software planned for May 2000.

Department of Labor and Industrial Relations

Crime Victims Compensation Unit

Division of Workers' Compensation
FY00 Appropriation - $148,000 to rewrite/update the Crime Victims Compensation computer application.

This application tracks all information dealing with Crime Victims claims, all associated parties to the claim, generates the ongoing form letters for processing of these claims and generates a tape to produce benefit checks. The current system is over ten years old and does not have the functionality to support current activities of this unit. A few of the enhancements that are needed include more detailed information to produce better statistics, the mechanism to monitor available state and federal funds more closely and the ability to provide detailed tracking of restitution payments and sources for possible restitution recovery. In addition, interfaces are needed with several sources including Medicaid, criminal history records and court systems.

The system will be written in-house using existing staff and one consultant that was previously working on the Workers Compensation AICS project. Much of the functionality from AICS will be used for the Crime Victims system to save development time. The system will feature a Windows interface for ease of use and to shorten the learning curve.

We have met with Crime Victims staff and are currently in the analysis phase of the project. Crime Victims and information systems staff recently traveled to Des Moines, Iowa to view the Iowa Crime Victims system, one of the premier systems in the country. We obtained complete documentation of their computer system and business processes. This data will be extremely helpful in our development effort. We anticipate that the system design will begin in January 2000 and programming should start in February. Based on the size of the system (it is a fairly small system), we anticipate completion in the May - June 2000 timeframe.

At this time I do not foresee any problems completing this project in FY00, nor do I see the need for any additional funding.

Future Project (FY2001 Proposal):

Unemployment Contribution Unit

Division of Employment Security
Funding Source: Special Employment Security Fund
Total Request: $2,091,000

The Department needs Special Employment Security funds to assist with the cost rewriting the automated tax programs for the efficient collection of unemployment contributions and wage records necessary to file unemployment claims. New automated programming will allow the department to:

- maintain an effective unemployment insurance program for workers and employers,
- maximize automation rather than increase staff to improve services to workers and employers, and
- easily modify the new system to accommodate future changes.

Department of Mental Health

Current Projects

- Completed Y2K remediation and testing of all DMH enterprise systems.
- Worked with DMH-operated facilities to help them make similar preparations.
- Converted workgroup applications to Y2K compliant releases.
- Implemented SAM II Financial System.
- Began planning for SAM II HR System.
- Currently evaluating responses to an RFP for a replacement Hospital Information System for all of our 27 DMH-operated facilities. This system will include a central repository of facility data and core data for our contract providers. We expect to award this contract in the Spring of 2000.
- Developed and implemented a Service Authorization System in support of the Division of Alcohol and Drug Abuse CSTAR Medicaid program. This system is a complex, high functionality, web-based application developed by DMH staff using Microsoft Visual Interdev and an Oracle database.
- Developed and implemented a similar statewide web-based extension to our Incident and Investigation Tracking System.
- Completed moving all current client and financial data to DMH Data Warehouse.
- Began using Cognos Impromptu, Cognos Internet Web Reporter, and Microsoft tools to publish dozens of Decision Support reports delivered to DMH Intranet users.
- Invested heavily in upgrades to our wide area network.
- Replaced or improved the local area networks in several of our DMH-operated facilites.
- Converted several more facilities to Microsoft Exchange messaging and scheduling.

Future Plans

- Award bid for Hospital Information System.
- Continue to look for commercial solutions by developing RFP for Claims Processing system.
- Seek contract with the Missouri Institute of Mental Health to develop web-based Client Outcomes system.

- Continue to move all applications, data and information delivery, and knowledge management activities to web architecture.
- Extend DMH Data Warehouse to include Human Resources and workgroup
- application data.
- Replace current dial-up network subsystem with combination of technologies including secure Internet access for contract providers.
- Continue increasing DMH network bandwidth.
- Review 1997 DMH Strategic Plan for Information Technology and clarify future technology architecture around fewer platforms.

Department of Natural Resources

Background and Environment

The Department of Natural Resources' (DNR) mission is "to improve the quality of life and economic well being of all Missourians by fostering the prudent use and protection of our air, land, water, cultural, and energy resources." Core business functions that enable mission accomplishment include resource regulation and enforcement, service delivery, resource planning, management and support services.

The department's information technology environment exists to support the core business functions and consists of mainframe and mini computers, wide area networks and a variety of personal computers (PCs). The primary mainframe computer utilized by the department is maintained by the State Data Center (SDC). The SDC-managed mainframe hosts several significant software applications. Examples include a Public Drinking Water System used to support the enforcement of EPA policies and regulations, an Energy Loan System used to manage funds made available to schools for energy efficiency initiatives, and the Integrated Accounting System used to track personnel time and associated project and grant funding. Remote connections to other mainframe computers such as the United States Environmental Protection Agency's National Computer Center are also used to process large data sets. Mini computers and PCs are used to support department Geographic Information System (GIS) activities, and laboratory analysis of water and air samples. The wide area networks service approximately 2,056 department employees by providing the data sharing links for the department's program, regional and district offices. The PCs are an integral part of the network environment and are used for a wide variety of automation activities such as word processing, data analysis, graphics tasks, and to access network and mainframe applications.

The Department of Natural Resources is committed to enhancing service levels by improving access to department staff and information. To help meet this commitment, the department completed an Information Strategic Plan (ISP) in 1995. The department's ISP identified customers, the services they require, and the information needed to provide those services. Implementation of the plan is proceeding and will promote enforcement activities, responsiveness to public inquiries and coordination of departmental

information systems. ISP projects will facilitate making information readily available to department employees, other state and federal agencies, and the Missouri public.

Finally, the automation environment implemented and maintained by the DNR facilitates the department's ability to promote an understanding of natural resource issues, advocate public debate and encourage environmental stewardship. It also promotes responsible economic development by providing access to information regarding environmentally safe practices.

Current Initiatives

Commencing with fiscal year 1996, the Missouri legislature approved several DNR appropriation requests that support ISP-identified projects. Of these, a FY98 request focuses on the department's automation infrastructure and addresses two primary goals. First, the department's automation environment must be implemented and maintained in such a manner that it is ready to support emerging business needs. Second, from a long-term perspective, the department must drive down the cost of implementing and maintaining the resultant environment. In addition, the DNR continues to collaborate with the United States Environmental Protection Agency (USEPA) to address electronic reporting of environmental data. These on-going initiatives will facilitate the consolidation of reporting requirements, increase Internet access to data, reduce the reporting cost for industry and improve the integration of environmental data.

Second year automation infrastructure initiatives (FY99) included cabling infrastructure items, network management tools, file servers, desktop hardware and software, and end-user and support staff training. Because the department's communications capabilities were extremely limited, much of the work accomplished-to-date involves the department's cabling infrastructure. High-speed communications circuits have been installed for the Division of Geology and Land Survey, all six Division of Environmental Quality (DEQ) regional offices and all four Division of State Parks (DSP) district offices. In addition, local area networks were installed in the DSP district offices. Major accomplishments in this category also include the design and installation of networks and communications circuits for the new DEQ Jefferson City Regional Office and laboratory, and the department's new Elm Street buildings. These tasks have increased data transfer capacity between department entities, enabled the implementation of department-wide Internet connectivity, and "set the stage" for implementation of department-wide software systems (i.e., Fleet Management, Reservations, Permitting, etc.). The greatly improved system responsiveness will facilitate enhanced departmental service.

As the department's communications infrastructure continues to evolve, utilization must be known to plan for growth and systems must be reliable. Therefore, appropriate network management tools must be employed. During FY99 the department completed the initial implementation of a network management solution. The department is now able to monitor communications equipment and perform rudimentary capacity monitoring and trend analysis of statewide data circuits. FY99 efforts have also enabled remote software installation, configuration and auditing capabilities. The new network

management capabilities also support quick problem diagnosis, enables software license metering, extends fault-tolerant capabilities, and improves system reliability. Implementation of appropriate tools will continue to enhance the department's network management capabilities during the coming years.

Much has also been accomplished in the server consolidation category. Utilizing servers and software that were purchased during FY98, Lotus Notes e-mail and scheduling applications were implemented during FY99 and FY00 to replace old systems that were not Year 2000 compliant. Also, enterprise file servers to support the Jefferson Building and the Elm Street campus complex were installed, and an automated disaster recovery system was implemented. Finally, many miscellaneous tasks also have been accomplished in this category. For example, the Jefferson Building's computer room was reconfigured to accommodate the new equipment. In addition to improving efficiency and availability, the new servers provide a Year 2000 compliant environment for our department-wide messaging system, and enable the implementation of new department-wide software applications.

To maximize staff productivity and lower costs, the department is implementing a standard desktop environment. To facilitate this initiative, 146 PCs were purchased during FY99 and distributed across the department. Additionally, volume purchases of standard software enabled the implementation of the new e-mail and scheduling systems without requiring "individuals" to purchase necessary desktop software, and it has helped to ensure that all software utilized by the department is legally licensed. These volume purchases have also allowed the department to negotiate discounts and save thousands of dollars. The department has also used available consulting services to simultaneously address Year 2000 software compliance issues as we migrate old software applications to the new standards. Greatly improved technical support and training efficiencies have been realized, and the resultant standard desktop environment will facilitate cost-effective and timely implementation of department-wide software applications. These efforts will continue during the coming years.

With the growth of PCs, networks and communications requirements throughout DNR, the department needed to attain the expertise required to integrate and maintain the resultant infrastructure. Training was also required for specific products such as the network management software, the firewall and the e-mail system. Therefore, during FY1999, over 41 departmental automation support personnel received technical training.

In addition to the training our technical support staff receives, it is also important that we train our employees to use the automation tools provided to them. Therefore, employees and supervisors have been working together to determine which courses are appropriate. During FY1999, over 2300 department employees attended training for topics such as SAM II, Microsoft Word, Excel, Access and PowerPoint; and the FOCUS query tool. New vendor training contracts and an "infrastructure" subsidy make it possible for employees to attend this training for less than 30 percent of what it had previously cost them.

During FY99 SAM II training, program specific training and new application training requirements mandated the implementation of a second DNR training facility at DNR's Elm Street location. Almost all the training accomplished during FY99 was held at the department's new computer training facilities, and training in all areas will continue to be a priority during the coming years.

The department's dynamic Web environment initially implemented to support public access needs continued to rapidly grow during FY99. This environment has grown from approximately 50 pages of information in early 1996 to nearly 1500 pages at the present. The department's homepage is viewed up to 8,000 per day, --- an increase from the 1,300 times per day during FY98. Currently, the department furnishes databases, technical bulletins and fact sheets to the public via the Internet, and we continue to receive requests from the public to provide additional Internet accessible publications and news releases. As an example, statewide Air Quality Monitoring data is collected electronically on a daily basis. This data is then manipulated into approximately 30 Web pages with over 70 graphics and published every Monday on the Internet.

Ultimately, over time, the department's Web environment will become an environmental information system that will support compliance assistance by facilitating the development of industry sector profiles that would highlight the industries and the types of facilities in particular that are subject to various cross-media requirements. Goals include providing Internet access to cross-linked environmental data, consolidating the reporting requirements of regulated facilities and supporting a facility-wide approach to permitting, enforcement, and inspections. The cross-linked information will strengthen decisions made within the department and impact the decisions of others. It will facilitate an improved understanding of resource issues and informed decision making. Instead of going to numerous programs and agencies for information concerning one company, the public and staff will be able to access our Internet site and link multiple air, soil and water issues to that particular company.

The Web provides a forum for exchange --- an opportunity to collaborate and communicate with the many stakeholders involved in natural, energy and cultural resource use, protection and preservation. Access to environmental data will act as a catalyst for citizens, facilities, and organizations to encourage them to consider the environmental impact of their decisions and actions. Citizens will have access to the data they need to help them evaluate their position on environmental issues. This will facilitate public debate on natural resource issues and encourage improvements in the data collected.

Future Direction

From a statewide perspective, communications needs resulting from data center consolidation efforts, the rapid growth of client-server applications and the deployment of multimedia services mandate the need for a communications-computer environment designed to integrate robust corporate data bases with an evolving, powerful PC-based multitasking environment. To address this need and to facilitate cost-effective and efficient operations, the DNR will continue to aggressively pursue partnerships with other state and federal agencies.

Many of the ISP identified projects are interdependent, and all current and future initiatives originate from them. All ISP software projects will adhere to the emerging statewide strategy of utilizing IEF software development methodologies. Additionally, an integral part of the target communications-computer environment is a standard hardware and software environment. All emerging department standardization strategies will adhere to evolving statewide standards. The ISP projects personify the statewide strategy of focusing on access, optimization and innovation when providing services and making information readily available and easily accessible to the Missouri public. Resources are being shared and used to their maximum potential and solutions are being implemented in a manner that provides the greatest overall benefit.

Maturation and enhancement of current system capabilities are imperative if the department hopes to focus on quality and delivery of excellent, reliable service. Public access needs must be supported and department employees must have reliable communications-computer systems to facilitate quick decisions and actions as they strive to fulfill the DNR mission.

Department of Revenue

General Information

Department of Revenue continues to pursue its strategic vision of simplifying everything we do; information technology plays a central role in that vision. In 1999 we sought to improve customer service, decrease the cost of compliance with our laws for our department as well as our customers, increase voluntary compliance, and increase communication with our internal and external customers. In 2000, we will continue these initiatives and also seek to win the Missouri Quality Award.

The department continues to place key emphasis on business process reengineering to meet our objectives. Business processes must drive technology projects. Business process reengineering is the first step; automating sound processes is considered after we are sure the process is correct and efficient.

The department seeks to employ project management methods and tools in all of our operations, but particularly in our information technology operations and projects. Fourteen members of the Revenue team entered the Boston University project management classes sponsored by the state; more than half of those entering the course of study are from the business process areas in the department. The department's strategic plan is also being linked with project management systems that will allow status monitoring and follow up on key initiatives.

A five-year plan for the Revenue web site was completed and approved for implementation. Prior to this plan, the web site was handled on a part-time basis. The plan will allow integrating the key products from the department into the site and improve customer service.

A security evaluation was initiated during 1999 for Revenue information technology systems. This evaluation will cover policy, procedures, system evaluations, and intrusion detection. The final report is expected in January 2000.

The department Year 2000 efforts have been completed on time and under budget. During the remaining weeks of 1999 a detailed plan for testing after the date rollover is being completed and we will be ready to make any last minute adjustments to systems during the New Year Holiday weekend.

Motor Vehicle and Driver Licensing Division

Field Automation System for Title and Registration (FASTR)

The Field Automation System for Title and Registration is an automation system that will integrate into a single system, the 21 different motor vehicle and watercraft database programs currently used by the Department of Revenue's (DOR) Motor Vehicle Bureau (MVB.) FASTR is a client/server system that will serve a variety of users from the MVB's central office to the 178 field offices to the Missouri State Highway Patrol and DOR's Division of Taxation. FASTR automates all titling and registration processes and allows on-line, real-time processing of transactions in the central office and the field.

Currently, a very limited titling capability is operational in MVB's central office. By mid-December, the next release of system functionality will be delivered. It will provide most motor vehicle registration functions. The next planned release is mid-June 2000. It will provide the remainder of titling functions and all functions needed for field deployment of the system. Field deployment to all 178 offices is currently planned for CY 2001. The final release, date yet to be determined, will round out MVB central office and Taxation processing functions. To date we have spent $7,864,399 on the system.

Other systems in the future of MVB are the Motor Vehicle Mandatory Insurance Database that is currently in program definition stage. Statute requires that the system be operational by July 1, 2001. Other automation systems that can facilitate MVB operations include the Emissions Inspection Database being developed by DNR (to be operational by April 1, 2000; a statewide personal property tax database (we currently have 17counties on-line); and, a vehicle safety inspection database (yet to be defined). Once all these are in place, an on-line vehicle registration process must be developed.

Over The Counter Driver Licensing System (OTC)

The Over The Counter Driver Licensing System (OTC) is a networked system designed and implemented to issue driver licenses at the point of transaction vice the prior central office system which took three to six weeks to get the license in the had of the citizen. OTC also provides next day updates to law enforcement and other users of driver license information and reduced staff as well as cost.

The last field office was implemented February 17, 1999. The system is in full operation and production is normal. Y2K updates have been incorporated. The social security number on-line verification process that validates social security numbers with the Social Security Administration has been implemented statewide since September 1999 and is working fine. The first phase of a "Valid Without Photo" system was incorporated into OTC this year. There are two remaining contract segments to implement: the second phase of the "Valid Without Photo" system and the one step printer process.

The conversion to a six-year license expiring on the applicant's date of birth and the graduated driver licensing system will be incorporated into this system during the next year.

Division of Taxation and Collection

There were no active projects that were funded by a specific appropriation in the Division of Taxation and Collection. An income tax speed-up process was incorporated in the division that significantly improved processing. Laptop computers for our Field Auditors have been incorporated into our core budget and we are in the third year of the original lease.

We do have FY2001 requests in for the Consolidated Registration and Data Entry Conversion projects. If approved these projects will move us closer to meeting our objectives.

Department of Social Services

Electronic Benefits Transfer/Direct Deposit

Missourians who qualify to receive Food Stamps, Temporary Aid to Needy Families (TANF), and/or a variety of federal benefits now access their benefits via a Personal Identification Number (PIN) protected, plastic magnetic stripe Electronic Benefits Transfer (EBT) card. The EBT card can be used at nearly all of Missouri's ATMs to withdraw cash benefits. It is accepted by grocers who participate in the federal food stamp program for debit purchases of approved food products.

Despite the implementation of EBT, direct deposit is the DSS preferred method of electronic payment for cash benefits. Direct deposit is cost effective for the state when compared to EBT or paper checks; direct deposit uses the payees' personal bank accounts, thus avoiding the need for the state to establish and maintain an EBT account.

- Missouri is the only state to develop an automated system for banks to use to enroll their depositors who are DSS clients in direct deposit.

- Missouri's EBT system was developed and procured jointly with seven other states, a consortium collectively referred to as the Southern Alliance of States (SAS). Missouri has played a significant leadership role for SAS, serving as chair or vice-chair since the spring of 1995.

- Missouri is among the lowest price for EBT transactions in the country.

- Missouri's EBT system is among the first in the nation that allows citizens who receive benefits from state and federal agencies to receive both benefits on a single card.

- Missouri's EBT system is among the first in the nation to use the Quest operating rules. It is accepted by merchants in all states where EBT operates under the Quest rules.

- Missouri's EBT system saves taxpayers approximately $1 million per year.

- EBT became operational statewide in May 1998.

Family Assistance Management Information System

The Family Assistance Management Information System (FAMIS) is an automated integrated eligibility system for DSS programs including Temporary Assistance to Needy Families (TANF), food stamps, Medicaid, child care, and FUTURES. FAMIS will provide benefits and notices to clients automatically and will provide reports for case management and supervisory management for all levels of program administration. The roles and responsibilities of the Income Maintenance (IM) caseworker continue to change dramatically, particularly with the passage of the Welfare Reform law, and FAMIS is required to maintain the level of service delivery as eligibility determination continues to become more complex.

- FAMIS will automate labor-intensive processes, thereby speeding delivery of services to clients.

- FAMIS will standardize benefit eligibility determination, thereby reducing error rates.

- FAMIS will free up staff time that will be redirected toward the new welfare reform goal of helping clients become self-sufficient.

- All hardware for caseworkers and interview stations has been installed in all 115 county offices.

Resource Directory was implemented statewide in June 1998; Provider Registration in June 1999; and Child Care in October 1999. The next phase will be Food Stamp Eligibility Determination.

Missouri Automated Child Support System

The Missouri Automated Child Support System (MACSS) was developed in compliance with the 1988 Family Support Act that mandated each state child support agency install a statewide, comprehensive management and information computer system. Representatives from the Department of Social Services, Office of State Courts Administrator, county circuit clerks and prosecuting attorneys worked together to design and develop MACSS to meet their requirements and the mandates of the federal legislation.

MACSS is a single statewide system that maintains one record of case data that is shared by all involved in the child support community.

- MACSS uses on-line processing for the most up-to-date information.

- MACSS has on-line financial processes including bank reconciliation, daily processing of receipts, distributions and disbursements.

- MACSS has automated support calculations, automated non-custodial parent location and automated enforcement.

- MACSS was implemented statewide in September 1998.

Centralized Child Support Collections

Welfare reform legislation passed by Congress in 1996 required states to centrally collect and distribute child support collections.

- Missouri began a pilot in Pettis County in September 1999.

- 40% of the state was implemented in October 1999 and the remaining 60% will be implemented in mid-December.

- Statewide implementation is scheduled for December 1999.

Data Warehouse

A data warehouse is a source of static, integrated data representing the business view of the agency. It is capable of supporting high-level decision-making. The existing Department of Social Services (DSS) data warehouse is a system combining current and historical Income Maintenance (IM) data to specifically address the needs of Welfare Reform. The information is available on-line for DSS and community agency staff to query as needed and when needed according to their individual requirements.

- The DSS data warehouse enables quick and consistent response to requests from field staff, DSS management and community groups.

- The DSS data warehouse is a central area to combine data currently located in different systems in DS and other agencies.

- The DSS data warehouse provides the ability to look for meaningful relationships in the data to better design DSS programs to meet the needs of clients.

- The DSS data warehouse will serve as a model for other state agencies to utilize and potentially add data.

Phase I of the DSS data warehouse (TANF) was implemented in the spring of 1998. Phase II was implemented in December 1998 and included FUTURES data. Provider Registration was implemented in December 1999 with Child Care due for implementation in January 2000.

Prince Hall Family Support Center

The Prince Hall Family Support Center was established and operates under the authority of the Missouri Department of Social Services. The facility was established to serve as a family resource center, following the family support programs concept. Thus, the center seeks to develop a model, incorporating five basic family support practices: community-based programs and services, family focused programs, family empowering programs, family skill building, and culturally responsive programs and services.

The facility consists of twenty-seven Missouri State and private agencies joining in the effort to provide services in a comprehensive, integrated and holistic manner.

- Missouri Works provides on-site Internet for clients to access available employment information.
- A touch-screen information kiosk provides clients information about services available by agencies in the facility, the Governor's Silver Club and local employment opportunities.
- A direct telephone line is available to clients that provide immediate access to the Child Support payment information.
- Client information tracking is available for referrals and scheduling of appointments with various on-site agencies.

Office of Information Technology
1999 State of the State IT Report

Office of the State Courts Administrator

Project Overview

The Missouri Judiciary has been working diligently since 1995 to implement a set of standards for computer hardware and software and key court operations in order to begin implementation of a state-wide case management system. The vision for this system is to help courts provide improved service, fair and equitable justice and increased access to public information for all Missourians.

Information technology staff at the Office of State Courts Administrator (OSCA-IT) is actively involved in several key pieces of the court automation project. Budget appropriations were allocated to standardizing the statewide infrastructure, building the statewide judicial information network, rollout and support of the statewide case management system, establishment of a centralized fine collection center, and the research and development of an electronic case filing capability for the state.

Infrastructure

The success of court automation is completely dependent on the availability of computers, cabling, networks, and the associated hardware and software capable of supporting the court automation applications. Over the past several years, infrastructure standards were developed and information technology staff evaluated which courts were in alignment with those standards. Courts not in alignment were then placed on a schedule and purchased standard hardware and software for themselves or through the use of grant funds. IT staff worked in each court to network the systems. As of the end of FY99, 65 courts have complete infrastructure and 25 more are currently planning to receive their aligned infrastructure.

Statewide Judicial Information Network

One of the challenges of aligning standard infrastructure for each of the courts was building the frame relay – or network of lines that allows statewide communications. At the same time OSCA was building this network, the Highway Patrol and Department of Social Services were also building similar networks within courthouses. In order to save costs for the state and reduce disruption to courts, these three agencies came to an

agreement on using a joint infrastructure. This wide area network will eventually link every courthouse in the state.

With standard infrastructure in place, the Judiciary was in need of a communication system and statewide network to support it. The Lotus Notes software, including both email and an easily managed database system, continues to provide a firm foundation for statewide communication. It allows remote access so mobile judges and court users can continue to stay on top of their court dockets and other responsibilities regardless of their location. This year, over 2000 Lotus Notes users were added bringing a total of over 3500 users. 100% of Supreme Court, Appellate and Circuit Judges, Juvenile Officers, Administrators and Appellate Clerks have access to Lotus Notes. In addition, 90% of Associate Circuit Judges and 84% of Circuit Clerks have access to Lotus Notes.

Case Management System

With a Judiciary equipped with standard hardware and software, and the ability to effectively communicate, the Missouri Court Automation project was able to begin rolling out the statewide case management system. A product of the SCT Corporation, *Banner Courts*, will help court staffs process cases more efficiently for public access and information exchange, and will eventually result in a completely integrated justice system for Missouri. During the past year, OSCA-IT has built servers, written conversion scripts, and worked with court staffs across Missouri to implement *Banner Courts*. This extensive portion of the automation project requires between three and five months of work with each court, but proved especially beneficial to the seven courts that identified Year 2000 issues and were able to convert from use of their older systems to the compliant *Banner Courts* version 3.0. In order to maintain only one version throughout the Judiciary, courts in previous phases of the implementation process were also upgraded to version 3.0 prior to the end of 1999. Currently, The Court of Appeals – Eastern District, Jackson County, Montgomery County, Barton County, the Court of Appeals – Southern District, the Court of Appeals – Western District, the Supreme Court, Boone County, Cole County, Franklin County, Platte County, St. Charles County, Taney County and Warren County are operational using the Banner case management system.

Department of Transportation

Projects Completed

*Trns*Port System*

Trns*port Proposal and Estimate System (PES), Trns*port Letting and Award System (LAS) and Trns*port SiteManager were implemented during the summer of 1999. These modular software products, developed through a joint project lead by AASHTO (American Association of State Highway and Transportation Officials), address the lifecycle of transportation program management from preliminary cost estimation through construction management and project finalization. The PES module allows for preparation of bid packages and proposal documents that are then passed into the LAS module. The LAS module provides bid letting support and analysis tools needed to make award decisions. Once awards are made, the information is then passed into the SiteManager module which is a comprehensive construction management system that includes inspector's daily work report and diaries, materials management, contract administration and contractor payments (which are processed through SAM II). Combined, these three systems replaced many outdated mainframe and PC programs, provided additional functionality over existing systems and gave MoDOT a much-improved means of bidding, awarding and tracking construction projects.

One particular highlight was the SiteManager training program. This training program not only offered MoDOT employees the opportunity to learn the new processes and automation at their own pace, in their own location, and at their convenience, but also won the prestigious AASHTO "Exemplary Partner" award. This training program was accomplished through teaming among several business units within the department, including Information Systems, Construction, and Materials. This approach boosted acceptance and was very cost effective. Other state DOTs have expressed interest in purchasing the MoDOT training materials and program.

Transportation Management System

Implementation of the Transportation Management System (TMS) was completed in March 1999. The TMS allows us to integrate data from multiple sources such as bridge, pavement, safety, traffic monitoring/congestion, outdoor advertising (billboards) and

travelways, and allows you to graphically view and analyze this data to make better decisions concerning preservation and construction of MoDOT's transportation systems. The TMS is based upon a common location referencing system that utilizes Arc/Info software to link graphical information (such as an Interstate Highway) to tabular information (such as traffic counts or accidents) through the use of Oracle relational databases. We have also developed an enhanced Safety Management module that is scheduled for implementation in January 2000.

New Financial System

In conjunction with the SAM II project, MoDOT developed several interfaces and converted data from several of our existing systems to be input into SAM II. The GUI part of SAM II was also rolled out to General Headquarters and District Offices to over 1500 client PCs. A MoDOT data mart was also implemented that will compliment the OA data warehouse by containing more detailed financial (project related) information required by MoDOT. In addition, the MoDOT standard query tool, Impromptu (from Cognos), was upgraded from Version 4 to Version 5 in order to give the functionality needed by the users of the MoDOT data mart.

Network Upgrade

An upgrade of MoDOT's Wide Area Network (WAN) was implemented in conjunction with the SAM II and Y2K projects. With the upgrade, MoDOT can now utilize greater network bandwidth between it's Resident Engineer/Area Engineer offices, District offices and General Headquarters sites, along with greater dial-in capacity for its Maintenance buildings. A standards based network re-addressing scheme was also implemented in order to enable MoDOT's network to connect to OA's network for the purpose of exchanging SAMII data.

IT Equipment Purchases

Also completed in conjunction with both the FMS and Y2K projects was the purchase and installation of 1200 new PCs and laptops. These machines give the performance needed to run the SAM II application and replaced many non-Y2K compliant machines.

Anti-virus Software

Anti-virus software was rolled out to all PCs and servers in MoDOT. Prior to this rollout only incoming e-mail and certain servers were scanned for viruses. This project was completed at a crucial time, considering the increased threats posed by cyber-terrorists at the end of 1999.

Lotus Notes Upgrade

Implementation of Lotus Notes 4.6 e-mail and calendar functions to all MoDOT PCs was completed in late 1998. This project replaced the Office Vision e-mail and calendar products that were running on a VM mainframe and allowed us to shut down and remove the VM machine.

Operating Systems Upgrade

An upgrade to Windows NT 4.0 and MS Internet Explorer was completed statewide to over 4000 PCs and hundreds of servers. This was necessary to be Y2K compliant and also positioned the Department well for future application additions.

Backup System Upgrade

MoDOT uses IBM's ADSM as its backup/restore system. The ADSM software on all servers, as well as the SP node, needed upgrading to the latest level to be Y2K compliant. The upgrade was completed in the 4th Quarter of 1999.

Server Upgrades

In late 1998 an upgrade of our IBM SP system was purchased and installed, adding additional nodes and upgrading existing nodes. In 1999, all transactional Oracle databases and applications at the General Headquarters were successfully moved off older IBM platforms to this new SP system. Additionally, other AIX (UNIX) based file systems that stored data were moved off older IBM AIX platforms. Thus, by the end of 1999, all production AIX operations at the General Headquarters were housed on either the new SP system or IBM S70s that were installed in late 1998, allowing older AIX systems to be retired. This gave us a significant boost in computer power, gave us back some valuable computer room floor space and eliminated maintenance costs for the outdated systems. In addition, the MoDOT Web site servers were upgraded in 1999, giving greater performance to Missouri citizens who access the site.

Microsoft Office Rollout

MoDOT began a rollout of Microsoft Office in 1999, with several business units purchasing their own copies of the software and Information Systems supporting the rollout with configuration recommendations, template creation and macro programming services. To date over 1100 copies have been installed.

Current/Future Initiatives

- A new technology from Lotus called Quickplace is being implemented. Quickplace provides an interactive web-based site to send and receive information about a project. It allows both MoDOT and non-MoDOT personnel to contribute to project information tracking. The first Quickplace application will assist the long-range Transportation Planning team in communicating information about the long-range transportation plan. This application is currently in a testing phase and is planned to go online in January 2000.

- Tivoli Software Distribution and Inventory software is currently being implemented, giving us a current view of PCs, servers and software on our network, and reducing the need to personally visit individual PCs to install software.

- An Oracle 8i upgrade will be completed in the 1st Quarter, 2000.
- A statewide upgrade to Lotus Notes Version 5.1 is being planned for 2000.
- The rollout of Microsoft Office will continue, and an upgrade to the latest version, Office 2000, is planned.

- The implementation of a "demilitarized zone" for MoDOT's web site is planned. This "DMZ" will significantly enhance security of the MoDOT web site.

- An upgrade from Windows NT to Windows 2000 starting in the second half of the year is being planned.

- Network bandwidth between the General Headquarters and the District Offices will increase dramatically with the implementation of a new ATM WAN over fiber optic cable laid on MoDOT right-of-ways.

- Tivoli Software Distribution and Inventory will be fully implemented, giving ISD an up-to-date view of PCs, servers and software, and cutting down on the need to go to individual PCs to install software.

- New Help Desk software will be implemented to replace existing software that is outdated and no longer supported by the vendor.

- Work on the Transportation Management System will continue by the implementation of the Safety Management module in January 2000, as well as the analysis and development of the Bridge Management module.

- Work will continue on the interfaces, conversions, training, hardware and software required for the SAM II Human Resources/Payroll project.